5   commencing the transmission of [said] data copied from said main memory to

said buffer from said buffer memory onto the physical link of a network when a threshold

quantity of data has been copied from said main memory to said buffer memory; [and]

providing an indication to said host that a frame of data has been successfully

transmitted over said network when said frame of data has been copied from said main

10   memory to said buffer memory; and

allocating memory locations in said buffer memory as being available for

[new] additional frame data to be copied from said main memory upon successful transfer of

a [predetermined quantity] frame of said data from said buffer memory over said physical

link.

Please cancel claims 23-25 and 27.

Please amend claim 29 as follows:

29. (Once Amended) A [network controller] system comprising:

a buffer memory communicating with a main memory in a host computer for

storing data received from said main memory in parallel format and to be transmitted in serial

format over a network;

5   a parallel to serial converter communicating with said buffer memory and said

network;

a controller [for controlling the operation of said network controller including]

supplying a frame-transmit complete indication to said CPU immediately after the copying of

a complete frame from said main memory to said buffer memory but prior to the actual

10   complete transmission of said frame over the network, for commencing transmission of said

data over said network upon receipt of a threshold quantity of data into said buffer memory

from said main memory, [and] for causing buffer memory locations occupied by

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successfully transmitted frames to become available for data to be copied from said main memory, and for determining transmit related statistics.

Please amend claim 31, line 1, by changing the numeral "30" to - 29 -.

Please amend claim 32 as follows:

32. (Once Amended) The system of claim 29 further including statistics registers communicating with said controller and addressable by said CPU, said statistics registers being adapted to record transmit related statistics.

Please cancel claims 34-35.

Please amend claim 36 line 1 by changing the number "35" to - 29 -.

Please amend claim 37 as follows:

37. (Once Amended) In a method of transmitting a data frame from a computer having a system bus to which is connected a CPU running a network operating system with an upper protocol layer, a lower protocol layer and a driver layer, a main memory connected to said system bus and a bus mastering network controller connected to

5   said system bus and having a parallel side, [said] a serial side [also] connected to a physical link and capable of detecting transmit related events and a buffer memory connected between said parallel side and said serial side, the steps comprising:

in the parallel side:

a.   determining if said buffer is full;

10   b.   if yes, repeating step a;

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c.   if no, commencing writing a frame from said main memory to said buffer memory;

d.   determining if all of said frame has read from said main memory;

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e.   if no, repeating steps a through d <u>in said parallel side</u>;

f.   if yes, indicating to said driver layer that said data frame has been successfully transmitted;

g.   determining if there are additional data frames in main memory to be transmitted;

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h.   if yes, repeat steps b through [i] <u>h in said parallel side</u>;

i.   if no, enter idle state;

in the serial side:

a.   determin[e]<u>ing</u> if a threshold quantity of data has been written to said buffer memory;

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b.   if yes, commence transmission of said data frame over said physical layer;

c.   determine if said data frame has been transmitted;

d.   if yes, indicate transmission complete to said parallel side and wait for next data frame written to said buffer memory.

Please amend claim 39 as follows:

39. (Once Amended) The method of claim 38 further characterized by the step of recording [transmission statistics] <u>said detected transmit related events related to said data frame</u> after successful transmission of said data frame;

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